

State Route 28
Transportation Concept Report



Caltrans
District 3

May 1997



STATE ROUTE 28 SEGMENT FACT SHEET

SEGMENT: PLA 1		PKm Ahead: 0.137 PKm Back: 12.389									
JCT. RT. 89/TAHOE CITY TO GRANITE ROAD		Ahead PM: 0.085 Back PM: 7.700									
		Distance: Kilometers 12.253 Miles 7.615									
Transportation Concept											
Present Facility 2 lane conventional Concept Facility 2 lane conventional Ultimate Facility 2 lane conventional	Route Concept Improvements Minor safety and operational improvements to reduce accidents and provide the highest levels of service on the existing facility. Encourage greater public transit use. Support local plans for Transportation System Management (TSM) strategies such as shuttle services and transit incentives.										
Levels of Service Present LOS F 20-Year LOS No Build F 20-Year Concept LOS (Improved): F											
Local/Regional LOS Standards CMP LOS Standard E Placer County Transportation Planning Agency Gen Plan Standard D North Lake Tahoe General Plan, 1996											
Classification and System Designations Functional Classification: <u>Minor Arterial</u> System Designation: <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> NHS</td> <td><input checked="" type="checkbox"/> Freeway</td> <td><input type="checkbox"/> STRAHNET</td> </tr> <tr> <td><input type="checkbox"/> IRRS</td> <td><input checked="" type="checkbox"/> Expressway</td> <td><input type="checkbox"/> Regionally Significant</td> </tr> <tr> <td><input type="checkbox"/> Nat'l Truck Network</td> <td><input checked="" type="checkbox"/> Scenic</td> <td><input type="checkbox"/> Terminal Access Rte.</td> </tr> </table>			<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> Freeway	<input type="checkbox"/> STRAHNET	<input type="checkbox"/> IRRS	<input checked="" type="checkbox"/> Expressway	<input type="checkbox"/> Regionally Significant	<input type="checkbox"/> Nat'l Truck Network	<input checked="" type="checkbox"/> Scenic	<input type="checkbox"/> Terminal Access Rte.
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Description - Rationale - General Comments											
<p>The first segment of State Route 28 is a two-lane conventional highway from State Route 89 at Tahoe City to Granite Road. State Route 28 is largely urbanized and supports a variety of uses. These uses include services, tourist commercial, residential (both year-round and seasonal occupancy) and marine facilities oriented to Lake Tahoe.</p> <p>Currently operating at a LOS F during peak periods, this segment carries 16,400 AADT. By 2016, AADT is expected to increase to 23,300 with extended periods of LOS F.</p> <p>Pedestrian facilities are few and of varying quality. On-street parking often encroaches on the walkways adjacent to the businesses along this route forcing pedestrians to walk on the roadway.</p>											
PROJECT PROGRAMMING											
NO PROJECTS NOTED IN PROGRAMMING DOCUMENTS											

LOCAL PLANNING JURISDICTIONS		Air Quality	
TRPA/ MPO	Tahoe Regional Planning Agency (TRPA) Jim Baetge, Executive Director P.O. Box 1038 - 308 Dorla Ct. #103 Zephyr Cove, NV 89448 (702) 588-4547	The following information is a brief overview only. For specific environmental information, contact the Caltrans District 3 Environmental Offices.	
CMA	Placer County Transportation Planning Agency 853 Lincoln Way, Suite 109 Auburn, CA 95603	Air Basin: <u>Lake Tahoe, Mountain Cos. & Sac Valley</u>	
Air Quality District	Placer Co. APCD APCO, Richard Johnson Dewitt Center, 11464 B Ave., Auburn, CA 95603 (916) 889-7130	Air Quality Non-Attainment Designations:	
		CO <input type="checkbox"/> ATTAINMENT	OZONE <input type="checkbox"/> NON-ATTAINMENT for TRPA STANDARDS AND ATTAINMENT FOR STATE
			PM10 <input type="checkbox"/> ATTAINMENT (NON-ATTAINMENT FOR CALIF. 24 HR. STANDARD)

Land Use

Segment 1 land use designation is primarily tourist, recreational and commercial.

Most of the land use along this segment offers a wide variety of recreational activities in all seasons - skiing, boating, swimming, golfing, horseback riding, biking, fishing, and sight-seeing. A number of ski areas exist throughout the Lake Tahoe Basin and these sometime operate at capacity during peak periods. Summertime use of facilities in the Tahoe City area include boat launching and marina facility, and river rafting operations, including a designated use-only parking lot.

In 1990, the population of the Tahoe City area was 1,634 persons and the population of Dollar Point was 1,449. According to the Tahoe Regional Planning Agency (TRPA), population forecasts for the Tahoe Region indicate an increase of 27.7 percent in residential population between the 1987 base year and the 2007 forecast year.

The employment along this segment of the route is seasonally influenced. During the winter the major employers are the major ski resorts and in the hotels, motels, vacation properties, and restaurants that support the resorts. In the summer months, employment shifts to those businesses that support tourism, such as restaurants, bars, motels, and small speciality shops. Employment can also be found in the construction activity. TRPA forecasts a 14.5 percent in regional employment between the 1987 base year and the 2007 forecast for this area.

The Tahoe City community had 1,860 housing units in 1990. Vacant or seasonal units comprised 1,168 (63%). Average household size was 2.4.

Modal Options

Public Transit

Tahoe Area Regional Transit (TART) system operates bus lines daily from Tahoe City to Incline. Hours of operation: 6:30 AM to 6:30 PM (every hour on the half hour).

Tahoe City area bus lines. Ski shuttles carry approx. 343,000 passengers each year.

Lake Lapper

The Lake Lapper operates 2 buses year round. Hours of operation:

6:00 AM to 5:00 PM (Monday-Thursday, Sunday) and from 6:00 AM to 10:30 PM (Friday/Saturday).

Other

The ski resorts offer shuttle service during the ski season with transfers at TART stops. The Tahoe Queen Ferry shuttles passengers between the South Shore and

Planning Documents-Special Studies & Reports

North Lake Tahoe Redevelopment Plan - Final
Environmental Impact Report, May 1996

1995 California State Highway Log

North Tahoe Community Plan, April 1996

TRPA's Regional Transportation Plan- Air Quality Plan -
Lake Tahoe Region (reaffirmed December 1994)

Tahoe City Community Plan, Feb. 1994

1997 Regional Transportation Plan - Air Quality - Draft

Traffic Analysis and Highway Information

Traffic Forecasts

<u>Year</u>	<u>AADT</u>	<u>Peak Hourly Volumes</u>	<u>V/C Ratio</u>	<u>LOS</u>	<u>Traffic Analysis Comments</u>
1996	16,400	2,000	0.92	F	
2006	19,800	2,420	1.12	F	
2016	23,300	2,840	1.31	F	

% Traffic Growth/Yr	<u>2%</u>	Land Use	<u>REC/COM/SFB</u>	Peak Period Dir Split	<u>56%</u>
Terrain	<u>MOUNTAINOUS</u>	Future 20-Year Land Use	<u>REC/COM/SFB</u>	Peak Period Truck %	<u>2%</u>
Total Accident Rate vs Statewide Avg.	<u>142%</u>	Fatalities + Injuries Acc Rate vs Statewide Avg	<u>46%</u>	Daily Truck %	<u>3%</u>

Available Right of Way Information

Average Median Width: 0.00 Meters Average Shoulder Widths: 1.22 Meters
Average Lane Widths: 3.66 Meters LANES 2

RW Comments General:

There is insufficient data available for detailed right of way needs at this time.

STATE ROUTE 28 SEGMENT FACT SHEET

SEGMENT: PLA 2
GRANITE ROAD TO COON STREET

PKm Ahead: 12.389 PKm Back: 16.412
Ahead PM: 7.700 Back PM: 10.200
Distance: Kilometers 4.023 Miles 2.500

Transportation Concept

Present Facility 4 lane conventional

Concept Facility 4 lane conventional

Ultimate Facility 4 lane conventional

Route Concept Improvements

Minor safety and operational improvements to reduce accidents and provide the highest levels of service on the existing facility.

Encourage greater public transit use.

Support local plans for Transportation System Management (TSM) strategies such as shuttle services and transit incentives.

Levels of Service

Present LOS B

20-Year LOS No Build C

20-Year Concept LOS (Improved): F

Local/Regional LOS Standards

CMP LOS Standard E
Placer County Transportation Planning Agency

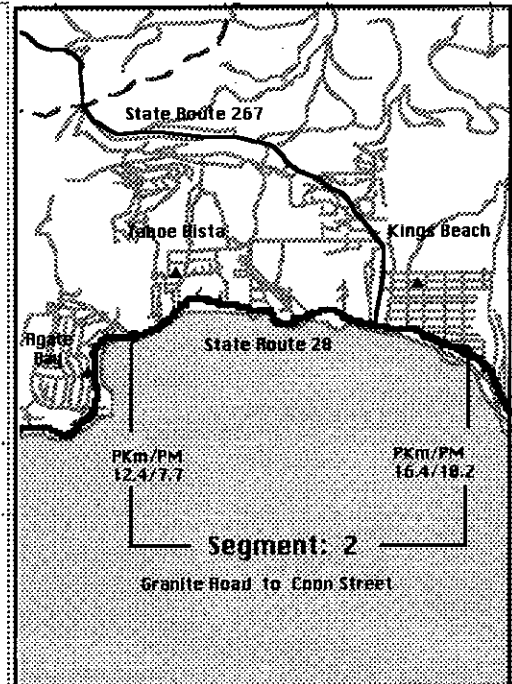
Gen Plan Standard D
North Lake Tahoe General Plan, 1996

Classification and System Designations

Functional Classification: Minor Arterial

System Designation:

<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> Freeway	<input type="checkbox"/> STRAHNET
<input type="checkbox"/> IRRS	<input checked="" type="checkbox"/> Expressway	<input type="checkbox"/> Regionally Significant
<input type="checkbox"/> Nat'l Truck Network	<input checked="" type="checkbox"/> Scenic	<input type="checkbox"/> Terminal Access Rte.



Description - Rationale - General Comments

This segment of State Route 28 is a 4.3 kilometers (2.6 miles) four lane conventional highway from Granite Road to Coon Street.

Members of the community requested the Placer County Planning Department to study the possibility of reducing the number of lanes on this segment (Kings Beach) from four to three lanes. This reduction in lanes would provide a continuous left-turn lane in the median. Caltrans conducted a traffic analysis in December 1996. This analysis determined that this proposed reduction in lanes would result in increased delays, longer queues, additional fuel consumption and reduced quality on the State Route 28/267 signalized intersection level of service.

Currently operating at a LOS B during peak periods, this segment carries 18,100 AADT. By 2016, traffic is expected to increase to 24,400 AADT with LOS C.

PROJECT PROGRAMMING

NO PROJECTS NOTED IN
PROGRAMMING DOCUMENTS

LOCAL PLANNING JURISDICTIONS		Air Quality	
RTPA/ MPO	Tahoe Regional Planning Agency (TRPA) Jim Baetge, Executive Director P.O. Box 1038 - 308 Dorla Ct. #103 Zephyr Cove, NV 89448 (702) 588-4547	The following information is a brief overview only. For specific environmental information, contact the Caltrans District 3 Environmental Offices.	
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	CO ATTAINMENT	OZONE NON-ATTAINMENT for TRPA STANDARDS AND ATTAINMENT FOR STATE	PM10 ATTAINMENT (NON-ATTAINMENT FOR CALIF. 24 HR. STANDARD)

Land Use

Land use in Segment 2 is predominantly tourist/recreational and commercial. There is a large number of motels, restaurants, and tourist related retail shops. In addition, there is also a wide variety of recreational activities occurring in all seasons, i.e., skiing, boating, swimming, golfing, horseback riding, biking, fishing, and sight-seeing. Tahoe Vista as well as Kings Beach contain recreational facilities such as public beaches, recreation concessions, a marina, and various water sports. Kings Beach has a public golf course.

According to the North Lake Tahoe Community Plan (1996), the population of the Tahoe Vista and Kings Beach communities was 2,796 and 1,144 persons respectively.

The employment along this route is seasonally influenced. During the winter the major employers are the major ski resorts and in the hotels, motels, vacation properties, and restaurants that support the resorts. In the summer months, employment shifts to those businesses that support tourism, such as restaurants, bars, motels, and small speciality shops. Employment can also be found in the construction activity.

The Kings Beach community had 2,155 housing units, of which 1,062 (49%) were considered vacant or seasonal. Average household size was 2.55. Most of the housing is older and in fair condition. Some show signs of deterioration and in need of repair.

Modal Options

Public Transit

Tahoe Area Regional Transit (TART) system operates bus lines daily from Tahoe City to Incline. Hours of operation: 6:30 AM to 6:30 PM (every hour on the half hour).

Lake Lapper

The Lake Lapper operates 2 buses year round. Hours of operation: 6:00 AM to 5:00 PM (Monday-Thursday, Sunday) and from 6:00 AM to 10:30 PM (Friday/Saturday).

Other

The ski resorts offer shuttle service during the ski season with transfers at TART stops. The Tahoe Queen Ferry shuttles passengers between the South Shore and Tahoe City area bus lines. Ski shuttles carry approx. 343,000 passengers each year.

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Tahoe City Community Plan, Feb. 1994

1997 Regional Transportation Plan - Air Quality - Draft

Traffic Analysis and Highway Information

Traffic Forecasts

<u>Year</u>	<u>AADT</u>	<u>Peak Hourly Volumes</u>	<u>V/C Ratio</u>	<u>LOS</u>	<u>Traffic Analysis Comments</u>
1996	18,100	2,050	0.34	B	The program used for this analysis was "Netsim", a network analysis software sponsored by FHWA. Results of this traffic analysis are solely based on the operational characteristics of the arterial(i.e., signalized intersections, friction caused by pedestrians, driveways, driver behavior, etc.)
2006	21,300	2,410	0.38	B	
2016	24,400	2,800	0.43	C	

% Traffic Growth/Yr	<u>2%</u>	Land Use	<u>REC/COM/SFR</u>	Peak Period Dir Split	<u>52%</u>
Terrain	<u>LEVEL</u>	Future 20-Year Land Use	<u>REC/COM/SFR</u>	Peak Period Truck %	<u>2%</u>
Total Accident Rate vs Statewide Avg.	<u>190%</u>	Fatalities + Injuries Acc Rate vs Statewide Avg	<u>73%</u>	Daily Truck %	<u>3%</u>

Available Right of Way Information

Average Median Width: 0.00 Meters Average Shoulder Widths: 1.22 Meters
Average Lane Widths: 3.66 Meters LANES 4

RW Comments General:

There is insufficient data available for detailed right of way needs at this time.

STATE ROUTE 28 SEGMENT FACT SHEET

SEGMENT: PLA 3		PKm Ahead: 16.412 PKm Back: 17.744								
COON STREET TO CALIF/NEVADA STATE LINE		Ahead PM: 10.200 Back PM: 11.028								
		Distance: Kilometers 1.332 Miles 0.828								
Transportation Concept										
Present Facility 2 lane conventional Concept Facility 2 lane conventional Ultimate Facility 2 lane conventional	Route Concept Improvements Minor safety and operational improvements to reduce accidents and provide the highest levels of service on the existing facility. Encourage greater public transit use. Support local plans for Transportation System Management (TSM) strategies such as shuttle services and transit incentives.									
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Description - Rationale - General Comments This segment of State Route 28 is a two lane conventional highway from Coon Street to the California/Nevada State Line. Currently operating at a LOS E during peak periods, this segment carries 23,000 AADT. By 2016, traffic is expected to increase to 27,800 AADT and LOS F.										
PROJECT PROGRAMMING NO PROJECTS NOTED IN PROGRAMMING DOCUMENTS										

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Land Use

Land use along Segment 3 is designated as commercial/public service. There is a mixed residential area of condominiums and single family residences near the communities of Kings Beach and Brockway. The segment also continues to be tourist related with a wide variety of recreational activities. In addition, land use contains four operating casinos and accessory hotel/motels. This area contains the only hot springs in the basin.

The employment along this route is predominantly hotels, motels, vacations properties and restaurant related. Employment can also be found in the construction activity.

Modal Options

Public Transit

Tahoe Area Regional Transit (TART) system operates bus lines daily from Tahoe City to Incline. Hours of operation: 6:30 AM to 6:30 PM (every hour on the half hour).

Lake Lapper

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1995 California State Highway Log

1995 Traffic Volumes on California State Highways

North Tahoe Community Plan, April 1996

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Tahoe City Community Plan, Feb. 1994

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Traffic Analysis and Highway Information

Traffic Forecasts

<u>Year</u>	<u>AAADT</u>	<u>Peak Hourly Volumes</u>	<u>V/C Ratio</u>	<u>LOS</u>	<u>Traffic Analysis Comments</u>
1996	23,000	2,400	1.06	E	
2006	25,400	2,650	1.17	F	
2016	27,800	2,900	1.28	F	

% Traffic Growth/Yr	<u>1%</u>	Land Use	<u>COM/REC/SFB</u>	Peak Period Dir Split	<u>52%</u>
Terrain	<u>MOUNTAINOUS</u>	Future 20-Year Land Use	<u>COM/REC/SFB</u>	Peak Period Truck %	<u>2%</u>
Total Accident Rate vs Statewide Avg.	<u>97%</u>	Fatalities + Injuries Acc Rate vs Statewide Avg	<u>42%</u>	Daily Truck %	<u>3%</u>

Available Right of Way Information

Average Median Width: 0.00 Meters Average Shoulder Widths: 1.22 Meters
Average Lane Widths: 3.66 Meters LANES 2

RW Comments General:

There is insufficient data available for detailed right of way needs at this time.